



APPLIED CONCEPT GROUP

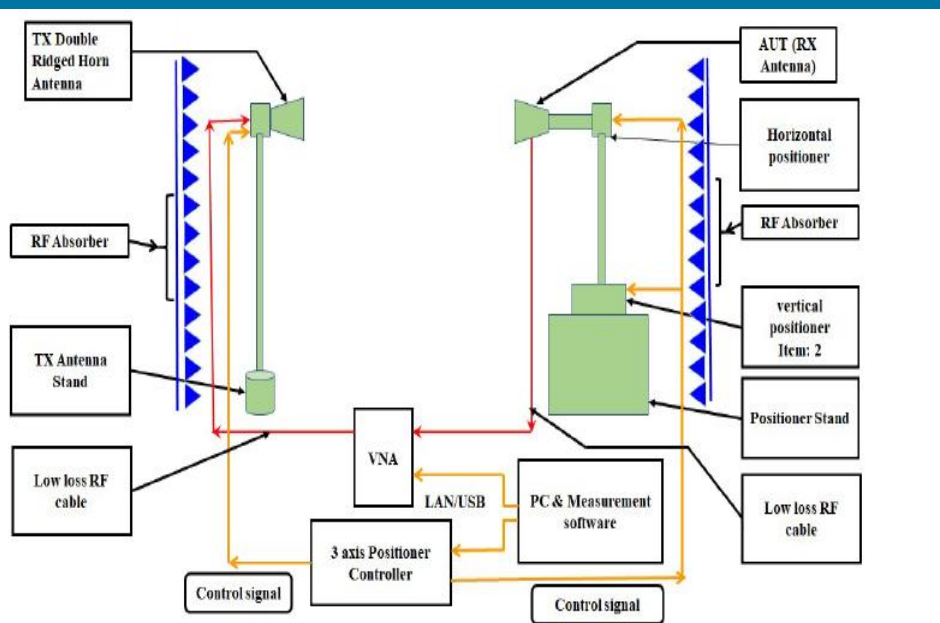
(AN APPROACH WITH CLEAR AND PRECISE VISION)

RADIO FREQUENCY & ACOUSTIC SOLUTIONS

(COMPLETE SOLUTION - DESIGN, CONSULTANCY, TRAINING, INSTALLATION AND TESTING)

PRODUCTS AND SERVICES

ACOUSTICS	RF-MICROWAVE
Acoustic Enclosure	RF-MW Absorbers
Anechoic chamber	RF Anechoic Chamber
Acoustic Sliding Partition	RF Anechoic Box
Acoustic Movable Partition Wall Panel	Shielded Chamber
Acoustic Baffles	Faraday Cage
Acoustic Cum Metal / Wooden fire Door	Shielded (RF / Wi-Fi) Box
Wooden / Steel Acoustic Door & Window	Shielded Tents / Curtains
Noise Test Booth	EMI-EMC Chamber
Room Acoustics for Engine test cell	Microwave Components
Glass Partition	Broadband Horn Antennas
Poly-carbonate / Metallic Noise Barrier (Reflective type)	Positioner System (Rotatory / Manual) Interfacing Software for Automatic Measurements
Wooden Acoustic Panels	Customized Small Chamber solution
Stretched Fabric Acoustic Panels	Customize open Chamber solution
Acoustic Foam	



COMPANY PROFILE

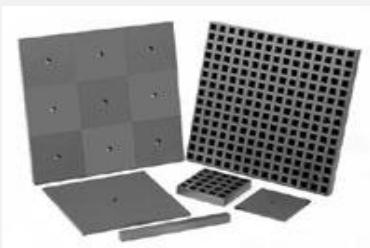
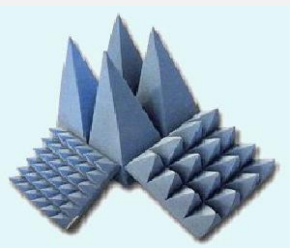
- ❖ We manufacture and distribute a broad range of high performing RF-MW & Acoustic products and structures required to solve the most common to the most unusual, complex and interesting Radiation control & Measurement applications that occur in the defense units, industrial, commercial, architectural and environmental markets we serve.
- ❖ **Our Mission** is to become leader in providing best possible solution in field of Microwave, RF by bringing in more innovation, new services and newer technology, thus new products and services for our clients.
- ❖ **Our Vision** is to provide turnkey RF-MW & Acoustic solution's to make electromagnetic radiations to radiation free environment for every need felt.
- ❖ **Core Strength** We research potential issues, undertake a cost benefit analysis and perform the necessary engineering services. Once all of the preliminary work is complete then we provide a cost-effective, best suited solution to your need with schedule time frame for its completion.

RADIO FREQUENCY – MICROWAVE ABSORBERS

- ❖ Designed and shaped to absorb incident RF Radiation.
- ❖ Comprised of Polyurethane foam loaded with carbon.
- ❖ The more effective the RAM is the less will be the level of reflected RF radiation.
- ❖ Available with wide range of thicknesses and absorbencies.
- ❖ Meets the fire retardant requirements of NRL specification 8093 tests 1, 2 and 3.

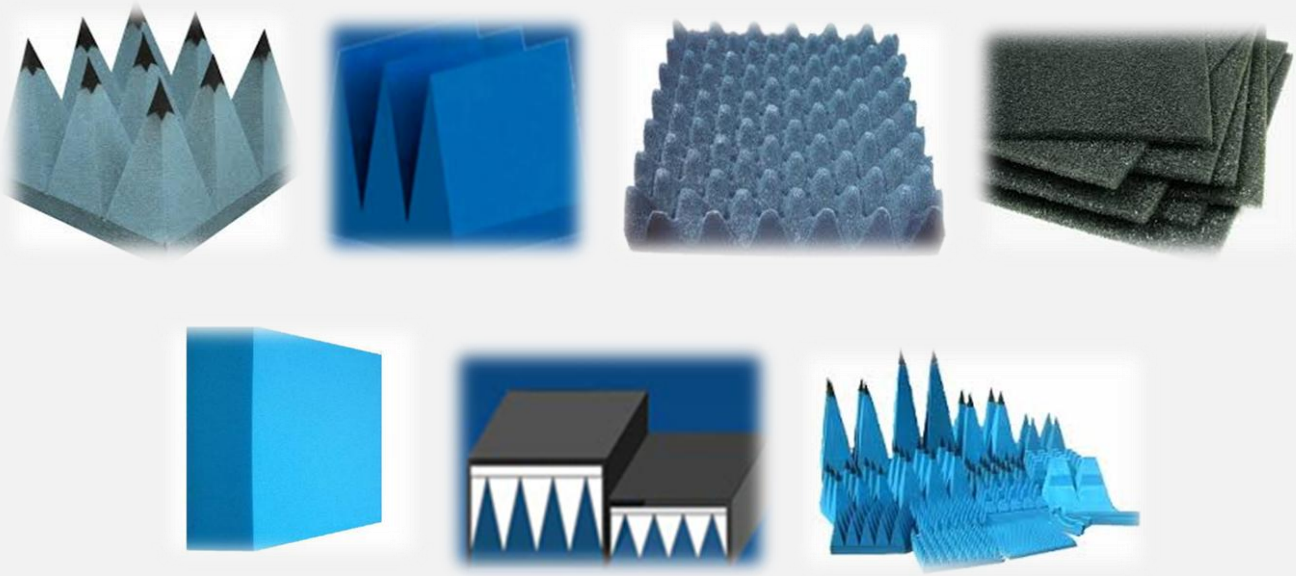
TYPES OF RAM

- ❖ PU Foam base absorbers (500MHz-40GHz)
- ❖ Ferrite tiles absorbers (30MHz-1GHz)
- ❖ Hybrid Absorbers (30MHz to 40GHz)
- ❖ Ecosorb Absorber Sheets (100 MHz to 18 GHz)



TYPES OF PU FOAM ABSORBERS

Pyramidal Absorbers, Wedge Absorbers, Convuluted Absorbers, Multilayer Broadband Absorbers, Flat Sheet Absorbers, Weather Proof Absorbers, Walk on Absorbers.

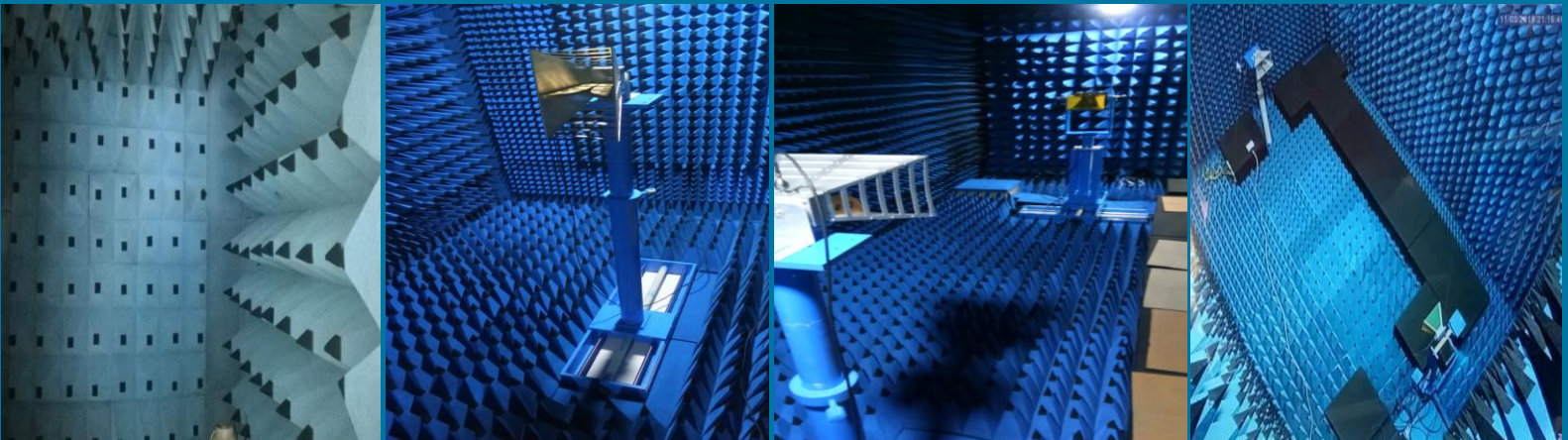


ANECHOIC CHAMBER

- ❖ RF Anechoic Chamber creates shield environment which prevents external electromagnetic signals from entering into the chamber.
- ❖ It is basically a shielded chamber comprising of RF Absorbers lined in the chamber area.
- ❖ Different applications have different types of chambers. These are categorized as SAC (semi anechoic chamber), FAC (Full anechoic chamber), OAT (Open Area Test Chamber).

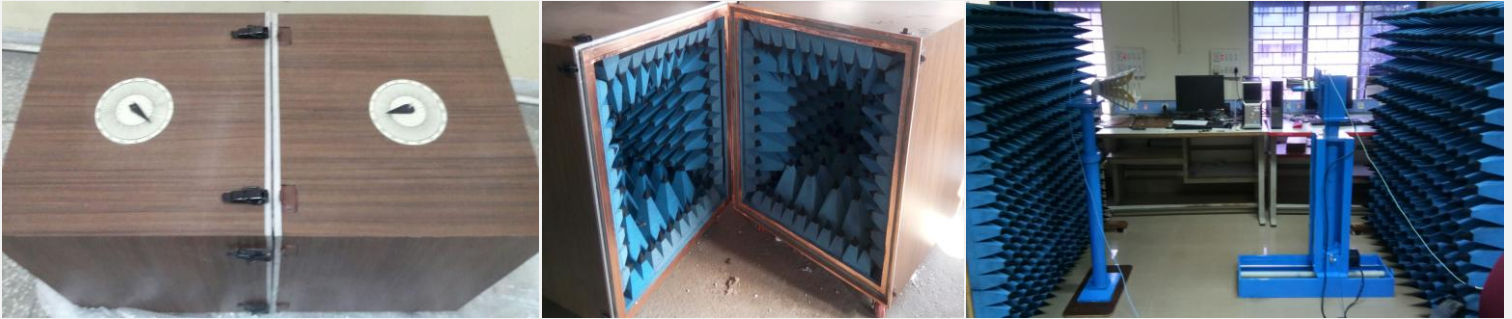
APPLICATIONS & USES

- Antenna / any electronic device / other devices parameters testing for checking its performance.
- Radar cross section measurements
- For shielding test of any wireless, communication device as it provides better attenuation to EM signals.



ANECHOIC BOX AND OPEN TEST SOLUTION

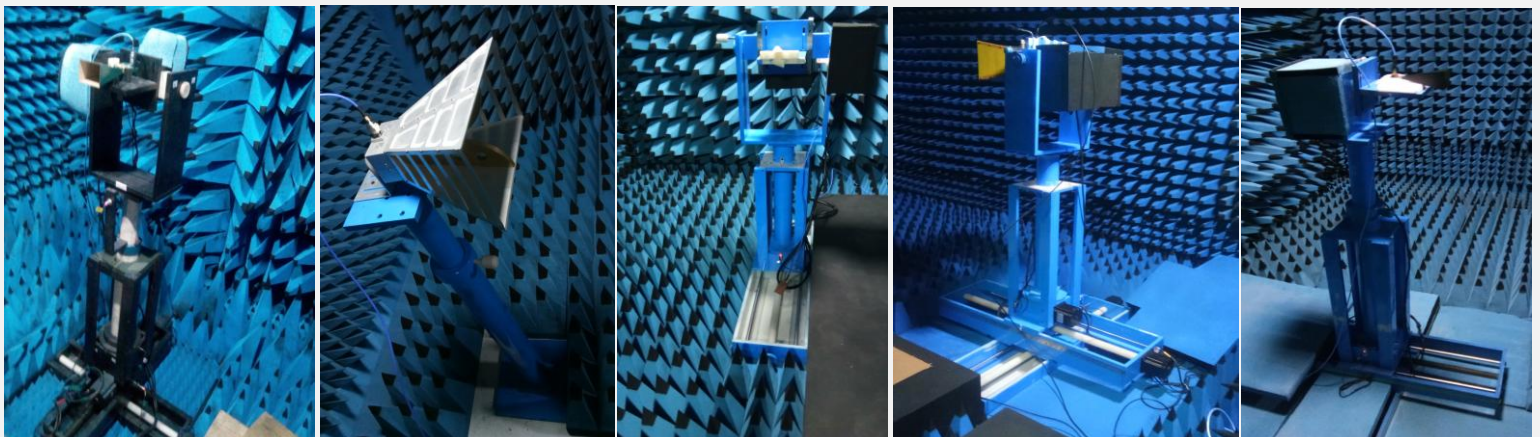
CUSTOMIZE MEASUREMENT ESPECIALLY LOW COST TEST SOLUTION



- ❖ RF Anechoic Box is compact chamber that creates environment for testing Antenna's / device performance in same manner as bigger chamber.
- ❖ Shielded cabinet lined with absorbers and have provision for mounting devices.
- ❖ Customized supply according to user specs.
- ❖ Variable size availability, Outer finish either Wooden or Powder coated Matt finish with desired shade, Access panel for feeding signal.
- ❖ These are modular, Durable & Low cost solution supplied with wheels on base.
- ❖ Two Anechoic boxes combined with clip in lock mechanism to test antenna parameters with use of Turn table or Positioner system. These parameters include radiation pattern, Gain measurement.

POSITIONER SYSTEM

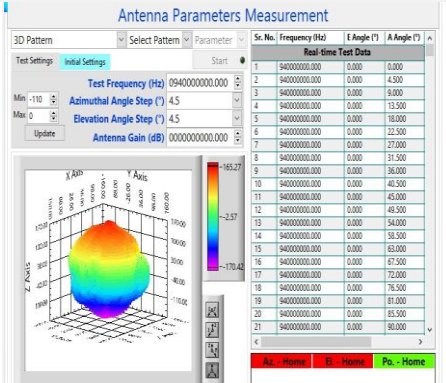
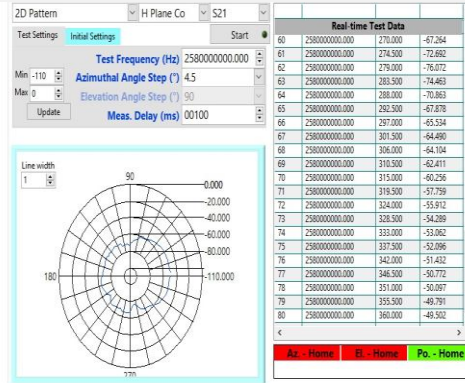
- ❖ Positioner system fabricated according to user specs which includes variants of Receiver positioner system & Fixed Transmitter positioner.
- ❖ 1 Axis , 2 Axis , 3 Axis , 5 Axis & 6 Axis Receiver positioner system variants are available with options to choose from Azimuthal, Elevation, polarization, X, Y , Z axis required to match with type.
- ❖ Receiver & Transmitter positioner will be supplied with provision to mount antennas.
- ❖ Customized supply to cater weight capacity both in receiver & transmitter positioner.
- ❖ Receiver positioner system includes motorized system which gets operated through PC interfacing.
- ❖ Different step sizes range provided with minimum step size of 0.1 degree with accuracy of ± 1 degree.
- ❖ Azimuth , polarization & Elevation axis movements in degree's with maximum 0 to 360 degree & X,Y & Z Axis movement in mm from 0 to 1000 mm.



INTERFACING SOFTWARE (AUTOMATIC MEASUREMENTS)

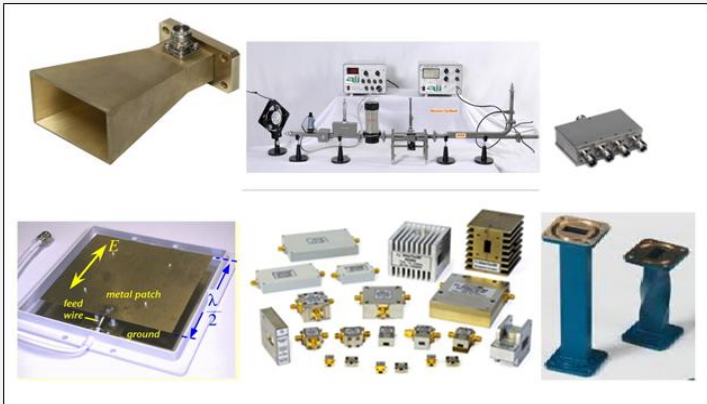
- ❖ We provide Lab-view based software for interfacing.
- ❖ Interfacing allows both VNA & Positioner system control within single software window & on command it rotate & synchronize both w.r.t inputs given by user in software.
- ❖ Positioner systems provided with interfacing with PC / Instrument for Automatic Measurements.
- ❖ Customized software for different parameters measurement like S parameters, 2 D Radiation pattern (E/H), 3 D Radiation Pattern (E/H), Gain Measurement, Axial Ratio, Beam width, etc.
- ❖ Manual & Automatic rotation of positioner system with software tab.
- ❖ Auto return & sensing of Home position through Proximity sensors.
- ❖ Connectivity of positioner hardware & Instrument to PC through USB, LAN, GPIB interfacing options.
- ❖ Customized software that can be interfaced with any model of any Manufacturer / Make.
- ❖ Graph plotting & result saving options are provided. Multipoint graph in single run also be provided maximum 6 to 8 frequency points.

Vector Network Analyzer- S820E (1MHz – 40 GHz)



MICROWAVE COMPONENTS (ANTENNAS-CABLES-TEST BENCHES-WAVEGUIDE)

- ❖ We deals in all type of microwave components that includes – Microwave test benches, MIC Kits, training kits, couplers, splitters, Attenuations, Adapters, connectors, Cables, Antennas etc.
- ❖ All types of Microwave test benches / training kits – Klystron base, Gunn diode base, radiation pattern measurement, Universal type etc.
- ❖ Customized & designed solutions are also being provided on user demand.
- ❖ Specialized in Broadband Horn Antennas.



PORTABLE ANECHOIC CHAMBER

- ❖ Preferred by a communications manufacturer to perform acoustic tests on digital assemblies being developed by their acoustics laboratory.
- ❖ Provision was made to place a removable table in the interior to set up and perform experiments.
- ❖ Custom Manufactured Acoustic Door to Any Size Specification.



SLIDING PARTITION – MOVABLE WALL SYSTEMS

- ❖ Utilize space more effectively and Movable wall systems.
- ❖ It is divider door which can slid and adjust according to our requirement.
- ❖ Absorbing noise & reducing distracting Echo or reverberation inside the buildings.
- ❖ Isolate the noise to pass from one room to another.
- ❖ Sliding partition applied in Banquet hall, Auditorium, Conference room etc.



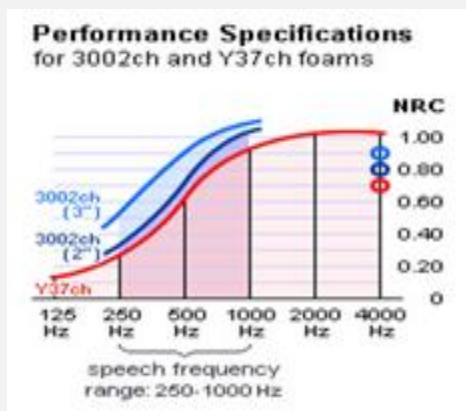
NOISE BARRIER – ABSORPTIVE / REFLECTIVE

- ❖ We design, manufacture & install customized noise barrier that suits the requirement of our clients.
- ❖ Standing barrier systems are sound absorptive / reflective on one or both sides and offer excellent sound transmission loss characteristics.
- ❖ Generally metallic noise barrier / acoustic panel has its own utilities as per its requirement and are highly demanded to control the noise.
- ❖ Product is unique engineering thermoplastic which combines a high level of physical, mechanical, electrical, thermal & very good noise reduction.
- ❖ Noise barrier found applications for construction sites, Heavy forging plant, Airport, Highways, Metro flyovers to reduce noise to nearby residential areas.
- ❖ We supply Sound barrier with high strength, with heat insulation & good light transmission.



ACOUSTIC PU FOAM

- ❖ We supply complete range of acoustic Polyurethane foam to meet your acoustic needs.
- ❖ Acoustic foam types will be pyramid, wedge, corrugated, flat sheet or any customized.
- ❖ Total sound absorption (blocking).
- ❖ These are applied to walls and surfaces with rubberize adhesive.
- ❖ Size & design depends on user requirement & applications.



Sound Absorption Coefficients			
	3002ch (3") Foam	3002ch (2") Foam	Y37ch Foam
125 Hz			0.13
250 Hz	0.50	0.31	0.27
500 Hz	0.91	0.73	0.62
1000 Hz	1.08	1.04	0.92
2000 Hz			1.02
4000 Hz			1.02
Overall NRC	0.90	0.80	0.70



SERVICES – DESIGN, INSTALLATION, TESTING, AMC & CONSULTANCY

- ❖ Each product get designed based on clients customize requirement & also comply necessary standards avoid any interference.
- ❖ Modular assembly of enclosures enables quick installation & dismantling to shift to another location.
- ❖ All products are tested as per applicable standards.
- ❖ We provide AMC on all newly or old installed products complied with user requirement.
- ❖ We as RF, Acoustics & Interior solution provider also deal with consultancy online / offline.
- ❖ Institutional /College Lab measurements / Demo presentations for RF / Microwave products / supplies.

OUR CLIENTS



CONTACT

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